The major issues to be addressed in this feasibility study include:

- Travel Demand Estimates
- Choice of Technology
- Horizontal and Vertical Alignment Possibilities
- Land Requirements
- Operational Plan
- Traffic Impacts
- Land Use and Planning Effects
- Social and Natural Environment Effects
- Operating and Capital Costs
- Phasing

## 2. STUDY SCOPE

This feasibility study, while dealing only with proposals in the Sheppard/Finch Corridor, is intended to generate information of sufficient depth to enable Metro Council and the TTC to set priorities and to make recommendations for the Sheppard/Finch, Downtown, and Eglinton West Rapid Transit proposals. These latter two studies are well under way; this work programme for the Sheppard/Finch study will enable a common completion date at the end of March to be achieved.

It is further intended that this study will meet the requirements of the Environmental Assessment Act (EAA). Any decision by Metro Council to proceed with implementation will require prior EAA approval, which ideally would be sought along with other approvals (e.g. Official Plan amendment, capital financing, Planning Act) under the provisions of the Consolidated Hearings Act.

In terms of scope, the study is defined as follows:

1. The study will be limited to alternatives along Sheppard and Finch Avenues and the Finch Hydro Right-of-Way;

2. The extent of the detailed study will be from Dufferin Street in the west to the Scarborough City Centre in the east;

3. Options for extending the line west of Dufferin and east of the Scarborough City Centre will be examined in a general way. Specific connections to Malvern and the GO-ALRT Lakeshore Corridor will be included;

4. Options for linking the Sheppard/Finch and existing Spadina subway lines, with or without the presence of a Domed Stadium, at Wilson Avenue, at the Stadium, at Sheppard Avenue, or at Finch Avenue will be considered;

5. This study will include an analysis of fare collection options. However, overall guidance will come from the recommendations of the TTC's recently completed Honour Fare Study and other previous fare policy reviews;

6. Close co-ordination will be carried out with the GO-ALRT studies;

7. The major technologies to be evaluated include local and express buses, express buses on reserved rights-of-way, light rail transit (i.e. CLRV's or ALRV's) and medium rapid transit, such as ICTS or the GO-ALRT vehicle;

8. Rights-of-way could be at-grade, either private or separate, elevated, subway or depressed, as appropriate;

9. The study will provide recommendations to take to the Technical Transportation Planning Committee (TTPC) and the GO-ALRT North Technical Advisory Committee (TAC), including a possible phasing plan;

10. The study is to be directed by a team comprising staff from the TTC, Metro Planning, Metro Roads and Traffic, and GO-ALRT. A Project Team will be established as described in Section 5.

## 3. WORK PROGRAM

In order to achieve the above objectives, the following tasks have been set up:

### TASK 1: Describe Technology Options

The purpose of this section is to define the modes and technologies around which to structure the analysis. It is realized that, although only three technology options are listed for the study, there can be many variations to each of them. Each option will have various alignment, grade and station configurations and an associated operational plan which define the overall "option package". The selection of packages will be such as to cover the breadth of the spectrum of options, realizing that not every possible package need be covered at this point. The exploration of the packages will include consideration of incremental expansion of transit capacity for phased development of the ultimate transit infrastructure in the corridor.

The phasing study and the long timeframe for the analysis will serve to illustrate how each of the technologies could be upgraded to meet a broad range of demands. For example, previous TTC work has indicated that a streetcar mode would be more efficient than buses in the demand range

of 3,000 persons per hour in the maximum hour peak direction. However, tandem ALRV's on their own right-of-way could carry up to 16,000 people (approximately) at a one-minute headway. Our current conception of ICTS and/or GO-ALRT technologies is that they could carry something over 20,000 persons per hour, although they would not be very efficient in low demand ranges. Therefore, the phasing options could include starting with one mode and a particular right-of-way/grade-separation scenario, and upgrading this mode or switching to a different technology in increments during later phases of the timeframe.

Exhibit 1 indicates the range of designs for rail vehicles. Not shown, as a further variable, is the fact that exclusive rights-of-way could be elevated, at-grade or in tunnel.

The three basic modes to be considered are:

1. Buses on Reserved Lanes/Busways/Bus Only Ramps - Variations of this option would have buses operating in mixed traffic or in reserved rights-of-way (lanes) for some or all of their length during some or all time periods. The selection of a particular right-of-way for a particular timeframe for any segment would depend on economics and operational considerations;

2. Light Rapid Transit (LRT) - Operating in a series of configurations from at-grade in mixed traffic to fully grade-separated on an exclusive right-of-way;

3. Medium Rapid Transit (MRT) - To include ICTS-type technologies or a technology using the vehicle shell such as that proposed for the GO-ALRT vehicle. It is assumed that this technology would

be fully grade-separated for its entire length with pre-paid boarding or honour fares. However, it may be possible to use on-board fare collection in off-peak hours.

The three basic modes and seven option packages proposed for evaluation are summarized in Exhibit 2. Of the two bus modes, one represents a Base Case, consisting of improvements which would likely be made, even if no capital improvements are made; and, an Improved Bus Option, which would add ramps and busways at terminals, subway stations and other major activity points as necessary. The two LRT packages represent an at-grade option (i.e. in the median of Sheppard or Finch Avenues) and a more capital intensive option with sections either above or below grade. Completely grade-separated LRT packages have been omitted at this time; such alternatives would evaluate very close to MRT in terms of impacts. Two initial MRT operations would be constructed for systems primarily elevated or below-grade, respectively (including depressed but not covered sections, where appropriate). After the first public meeting (see Task 12) and the completion of the Demand Analysis, new packages would be defined, and possibly some of the early ones dropped.

## TASK 2: Develop Horizontal and Vertical Alignment Options

The purpose of this task is to develop for each option package a horizontal and vertical alignment option which would be feasible and could probably be justified from economic, technical, and political points of view. The intent of this task is not to get into detailed design, but rather, to show enough information to determine basic feasibility and to enable environmental evaluation. The options developed will have regard for effects on local land use and

possible phasing options for the planning horizon of the study.

The objectives of this task include the following:

a) Development of horizontal and vertical alignment profiles;

b) Review of station locations and indication of type of station necessary;

c) Determination of type of surface transit facilities required;

d) Review of yard facility options;

e) Estimation of land requirements;

f) Consideration of construction staging opportunities and constraints;

g) Consideration in greater detail of intersecting stations at:
   i) the Spadina Subway
   ii) the Yonge Subway
   iii) the Scarborough RT Line.

The station options at Spadina and the Scarborough City Centre would consider possibilities for:

- extension of the Spadina line north and/or west;
- extension of the Sheppard/Finch line west;
- extension of the Sheppard/Finch line or the Scarborough RT to Malvern;

- o extension of the Sheppard/Finch line east and/or southeast to intersect the GO Lakeshore Corridor; and
- o future interchanges with the GO-ALRT North Metro line.

TASK 3: Travel Demand Estimates

The purpose of this task is to develop estimates of travel demand for each mode for the years 1991, 2001 and 2011. Figures to be developed for each study year[1] include the Base Case, LRT and MRT. Computer estimates provided by Metro Planning will be modified as necessary to account for small area impacts and relevant differences among modes.

The demand estimation phase will put together a full set of travel demand statistics to, from, and through the study area so that the full effects of the advanced transit systems on trip generation, distribution, and modal split can be analyzed and brought into context. Growth of population and employment will, of course, be included as part of the review so that the growth in generated trips within the corridor can be evaluated.

TASK 4: Development of Operational Plan

The purpose of this task is to indicate, at this stage in the planning of the facility, what would be required to make it function effectively and efficiently and up to the high standards which the TTC has set for its operations and developed its reputation on over the years. Essentially, then, this task will summarize what will be required to have

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1 Generally, detailed analyses will be carried out for 1991, 2001, 2011, as appropriate. Intermediate years will be estimated by interpolation.

a "good" operation. A secondary output will, of course, be the statements of required facilities from which costs can be developed in later tasks. Specific issues to be addressed in this task include the following:

a) Need for parallel surface (local) bus (see also Section 4.e);

b) Compatibility with existing equipment;

c) Possible feeder service designs;

d) Interface requirements at transfer facilities between surface routes, inter-regional services, and the rail line options;

e) Vehicular requirements (line haul and feeder);

f) Fare collection;

g) Operating frequencies and hours of service;

h) Station concept information, including:

- vertical profile
- bus bay requirements
- commuter parking and drop-off facilities
- access/egress opportunities and constraints;

i) Impacts on existing subway system.

TASK 5: Analyze Land Use and Development Effects

The purpose of this task is to review the existing land use along the corridor and to discuss how this land use is likely to change due to the implementation of the new facility and how this would compare with Metropolitan Toronto forecasts in this regard. It is planned that meetings will be held with the planning departments of Metro and the affected municipalities to determine what changes, if any, in their official plans are implied or projected by the results of the demand and alignment location tasks.

TASK 6: Analyze Effects on Natural Environment

TASK 7: Analyze Effects on Social Environment

To meet the requirements of the Environmental Assessment Act (EAA), a general list of evaluative criteria has been prescribed by law. These two tasks will deal with those evaluative criteria which do not fall into other tasks. The GO-ALRT consultant teams have already made significant progress in this area. A list of the evaluation criteria developed by GO-ALRT is contained in Exhibit 3.

TASK 8: Traffic Analysis

The effects of the implementation of each of the new facilities on traffic will be evaluated under three headings:

a) Corridor road traffic demand and level of service changes as auto users are attracted to improved transit facilities, or as road space may be shifted to transit-only purposes;

b) Localized traffic consequences including access to private property, special loads movements, circulation, and interchange capabilities at road junctions; and,

c) Station area impacts due to traffic attracted thereto, i.e. pedestrians, buses, commuter parking, and pick-up/drop-off vehicles.

Mitigating measures where required will be developed.

TASK 9: Cost Analysis

The purpose of this task is to develop estimates for operating and capital costs, including property costs, of selected options and supporting services and infrastructure over the time horizon of the study. Capital and operating costs and revenues will be expressed in 1984 dollars and net equivalent annual costs will be calculated. The analysis will also examine any trade-off on deferred capital expenditures for road improvements.

In Task 11, phasing plans will be developed should it appear desirable to implement one technology initially and then upgrade at a later date. The multi-phase approach will avoid providing excess capacity or an over-designed facility in the near term, but may involve additional costs due to the need to construct while maintaining existing operations. The phased systems will therefore consider the differential construction costs of building in different years. For all options, the time stream of costs and revenues and average annualized data will be computed.

TASK 10: Evaluation and Trade-off Analysis

The purpose of this analysis will be to review the evaluations developed in previous tasks and to illustrate the trade-offs amongst the various options. All the information developed will be presented to the project team member organizations for review and comment.

TASK 11: Development of Phasing Plans

Previous tasks will have developed estimates of the growth in demand in the study corridor. At this point, a

selection of the optimal modes phased in over the timeframe of the study will be carried out. This will be done in the following stages:

a) Final determination of demand level for each mode in 2001 and 2011;

b) Determination of the most appropriate configuration for each option package in each of the target years;

c) Selection of that option package which would be most appropriate in each of the target years;

d) Determination of the points in time at which improvements would be made to vehicles or other facets of the operation or design. The upgrading of the right-of-way, for example, could be done in stages with different portions of the route being given different treatments in different time periods. The important issue in this task will be to determine when and where significant upgradings must take place to meet local conditions and the growth in passenger demand;

e) Using the methodology described for Task 9, costs and revenues will be estimated for the phased options.

The end result of this task will be a set of logical steps which will indicate what decisions must be made now and what the consequences of these decisions are for the future and for necessary follow-on decisions.

TASK 12: Public Involvement Program

There will be a high degree of public interest in this project and a large public expenditure is involved. A rapid transit line along Sheppard or Finch Avenue could have considerable impacts on abutting property and will significantly affect the travel patterns of people living and working in the corridor.

Accordingly, the public involvement program needs to be comprehensive to satisfy the concerns of the general public, organized groups, elected officials, and the Environmental Assessment Act. In addition to being comprehensive, this task must strike a balance between the time and resources available and the need of the public to be informed.

Accordingly, the following specific activities are proposed in this task:

a) To provide the public with notification of the start of the study.

b) To provide public notification of the availability of the Terms of Reference indicating where copies may be obtained.

c) To provide notification of the availability of study reports indicating where copies may be seen. Copies will be provided to interested parties on request.

d) To provide for a limited number of public meetings jointly with GO-ALRT to interact directly with the public. Two such sets of meetings are proposed -

the first in November-December to present the options being studied, and the second in February to present the results of the evaluation and any conclusions.

As a result of each of the meetings, reports will be prepared to summarize the comments received from interested groups and individuals. These reports will go to the Commission and to Metro Council, along with the recommendations.

e) To provide for meetings with area municipal staff, through the TTPC and the GO-ALRT North TAC as well as at the working level.

TASK 13: Develop Recommendations and Draft Final Report

Following completion of the demand analysis, phasing plans, and evaluations, a set of staff recommendations will be made and presented to the TTPC and the NMRTCS-TAC as a draft report.

TASK 14: Complete Final Report

Following the consideration by TTPC and NMRTCS, a final report will be prepared to accompany the recommendations to the Commission and Metro Council. This final report will be accompanied by the reports from the Eglinton West and Downtown Relief line studies, and by an overall covering report which will consider the results of all three studies, and make a recommendation as to priority among the three lines.

## 4. SPECIAL SUBSTUDIES

These special studies aside from the regular work flow will lead to a series of short reports or directions to the Project Team (see Section 5) regarding issues which require special attention. The issues identified to date are summarized below.

### a) Alignment

An important issue will be the choice of Sheppard Avenue, Finch Avenue, or the Hydro Right-of-Way if an LRT or MRT line is selected. This analysis, to look at the issue from the TTC and Metropolitan Toronto point of view, will determine which general route is preferred (based on studies completed to date) to guide the remainder of the study. This analysis will not prejudice the analysis of GO-ALRT for interregional alignments.

### b) Systems Analysis Issues

Separate writeups will be given to each of the following topics which deal with the more complete network of rapid transit service in Metro, both local and interregional:

i) Concept of Sheppard/Spadina/Eglinton West links as a crosstown local rapid transit concept.

ii) Options for linking with GO-ALRT or GO Transit lines on either the east or west extensions (or both).

iii) Rationalization of preferred alternatives for GO-ALRT inter-regional services and TTC local services across North Metro, including concepts of Joint Use.

c) North-South Alternatives to Sheppard Line

It has been hypothesized that perhaps north-south links rather than east-west transit are a viable alternative. This paper will present the TTC's position on this issue.

Note: Some of the alternatives suggested are improvements to the Richmond Hill and Newmarket GO lines as well as a Don Valley Rapid Transit line.

d) Effects of Alternative Station Spacing

Effects of alternative station spacing assumptions on the need for parallel local bus service (LRT and MRT options) will be studied.

e) Demand for Commuter Parking

Demand for commuter parking at LRT/MRT stations (to be completed early in study) will assist the operational studies in Task 4.

f) North Yonge Centre

Employment is projected ultimately to grow from approximately 14,000 to 66,000 in this strategic location and studies are currently in progress at Metro Planning and GO-ALRT. This paper will

discuss the relationship of the Sheppard/Finch transit proposals to the North Yonge Centre.

g) Scarborough City Centre

Scarborough's aspirations for the City Centre are very heavily related to the transit lines serving it. A paper similar to the above will be prepared for the Scarborough City Centre, including a review of physical fit of various alignment options through the Centre.

h) Elderly and Handicapped

Special requirements for the elderly and handicapped will be identified and costs estimated for the recommended options.

## 5. PROJECT ORGANIZATION

The work effort will be carried out by a Project Team. The team will include a Project Manager, seconded from the GO-ALRT consultant group, and representatives of TTC branches, Metro Planning, Metro Roads and Traffic and GO-ALRT. Assisting the Project Team will be personnel from each of the member's organizations/branches and staff of the GO-ALRT consultant group. The Project Team will report through the Chairman to TTPC and the GO-ALRT North TAC and Executive Steering Committee. TTPC recommendations will go to the the Commission and to Metro Council.

The Project Manager will work out of TTC offices.

## 6. PROJECT SCHEDULE

Shown in Exhibit 4, the project schedule will run from now until March, the scheduled completion date of the Downtown and Eglinton West Rapid Transit Studies. Work on alignments and technology options would occupy the work effort until the end of September after which time the evaluations would be the principal activity. The latter part of December and most of January would be devoted to developing phasing plans and reports to be presented to the public meetings in February. Using the results of these meetings, recommendations would be developed by the GO-ALRT TAC and by TTPC for consideration by Metro Council and the Commission.

# EXHIBIT 1

## SYSTEM DESIGN OPTIONS

| VEHICLE | ROW | CONTROL | POWER SYSTEM | FARE SYSTEM | PLATFORM | CAPACITY (PPHPD) |
|---|---|---|---|---|---|---|
| CLRV (Single Unit) | Mixed Traffic | Manual | Non Catenary | Vehicle | Low | |
| | | | | | High | |
| | | | | Honour | Low | |
| | | | | | High | |
| | Semi Exclusive | Manual | Non Catenary | Vehicle | Low | |
| | | | | | High | |
| | | | | Honour | Low | |
| | | | | | High | |
| | Exclusive | Wayside Sig. | Non Catenary | Station | Low | |
| | | | | | High | |
| | | | | Honour | Low | |
| | | | | | High | |
| | | | Catenary | Station | Low | |
| | | | | | High | |
| | | | | Honour | Low | |
| | | | | | High | |
| | | In Cab Sig. | Non Catenary | Station | Low | |
| | | | | | High | |
| | | | | Honour | Low | |
| | | | | | High | |
| | | | Catenary | Station | Low | |
| | | | | | High | |
| | | | | Honour | Low | |
| | | | | | High | |
| | | Auto | Non Catenary | Station | Low | |
| | | | | | High | |
| | | | | Honour | Low | |
| | | | | | High | |
| | | | Catenary | Station | Low | |
| | | | | | High | |
| | | | | Honour | Low | |
| | | | | | High | |
| CLRV (Double Unit) | | | | | | |
| ALRV (Single Unit) | | | | | | |
| ALRV (Double Unit) | | | | | | |
| ICTS (1 Pair) | | | | | | |
| ICTS (2 Pair) | | | | | | |
| ICTS (3 Pair) | | | | | | |
| ICTS | | | | | | |

Exhibit 2

Sheppard/Finch Corridor Option Packages

| Mode | Option | Description |
|---|---|---|
| 1. Bus | Base Case | - Mix of local and express.<br>- Reserved lanes, priority signals. |
| 2. Bus | Improved Bus | - As above.<br>- Add ramps, busways, terminal and station facilities as appropriate. |
| 3. LRT | Fully At-grade | - Maximum practical right-of-way protection.<br>- On-board fare collection/ honour fare.<br>- Priority signals. |
| 4. LRT | Partially Separated | - At-grade, elevated, underground/depressed as appropriate.<br>- Maximum practical right-of-way protection.<br>- On-board/honour fare collection. |
| 5. MRT | Elevated | - High level platforms.<br>- Fully separate right-of-way. |
| 6. MRT | Underground/ Depressed | - Fully separate right-of-way.<br>- High level platforms. |
| 7. TBD | TBD | - Exact profile and alignment to be determined after first public meeting and upon completion of demand analysis. |

EXHIBIT 3

# GO-ALRT NORTHERN SECTION
# ASSESSMENT FACTORS


MAY 24, 1984

| CTOR | INDICATOR | MEASURES |
|---|---|---|
| GOALS FOR GO-ALRT | • SERVICE TO GROWTH CENTRES | - number of major centres served directly<br>- number of sub-centres served directly |
| | • LAND DEVELOPMENT | - undeveloped urban designated land within 15 minute local bus ride from GO-ALRT stations (ha) |
| | • INTER-REGIONAL TRANSIT SERVICE | - travel time between major centres |
| | • LOCAL TRANSIT SERVICE | - km of joint transit service |
| 2. SERVICE | • ACCESSIBILITY | - population and employment (existing and planned) within walking distance of stations (800 m residences, 500 m jobs)<br>- population and employment (existing and planned) within 15 minute bus ride of stations<br>- population within 15 minute auto ride of stations with parking |
| | • TRAVEL TIME | - population residing within 30 minute transit travel time contour of major centres (with & without GO-ALRT) |
| | • TRANSIT SYSTEMS INTEGRATION | - number of stations within 75 m of feeder transit routes<br>- distance (platform to platform) between GO-ALRT and rapid transit stations (where applicable)<br>- distance (platform to platform) between GO-ALRT and GO Train stations (where applicable) |
| | • STATION FACILITIES | - number of stations with off-street, integrated local bus facilities<br>- number of stations with terminal/station facilities for inter-city buses<br>- number of stations with 'Kiss 'n' Ride facilities<br>- total number of parking spaces available<br>- average walking distance between parking and platform |
| | • RIDERSHIP | - total number of daily person trips generated<br>- peak hour ridership<br>- off-peak generators and attractors (in gross floor area, attendance or other capacity measure) within 500 m of station |
| | • EFFECTS ON ROAD SYSTEM | - number of lanes/km removed from planned road system<br>- km of guideway profile transition sections on roadways<br>- number of road closures<br>- km of service roads required<br>- number of road profile changes required |
| 3. SOCIAL ENVIRONMENT | • SOCIAL | - number of households (owned and rented) displaced<br>- number of jobs displaced<br>- community facilities and services displaced (number and % of total in each affected community)<br>- proportional division of each community by facility ROW (ratio)<br>- consistency of expected land use and traffic changes around stations with neighbourhood character<br>- number of pedestrian tunnels required<br>- km of streets and sidewalk under guideway<br>- number of dwellings expected to experience noise increases >3dBA Leq over ambient<br>- number of buildings by type expected to experience vibration >w<br>- number of dwellings within 50 m of surface parking lot |
| | • CULTURAL | - number of heritage resources lost, categorized by significance<br>- number of heritage resources degraded<br>- number of heritage resources enhanced<br>- number of archaeological sites affected |
| | • VISUAL | - number of residential units within site line of facility (50 m, 200 m)<br>- number of residential backyards within 50 m of GO-ALRT passenger view<br>- viewing opportunities blocked or degraded by facility (no. and significance)<br>- viewing opportunities from facility (no. and significance)<br>- building sites constructed (no.) |

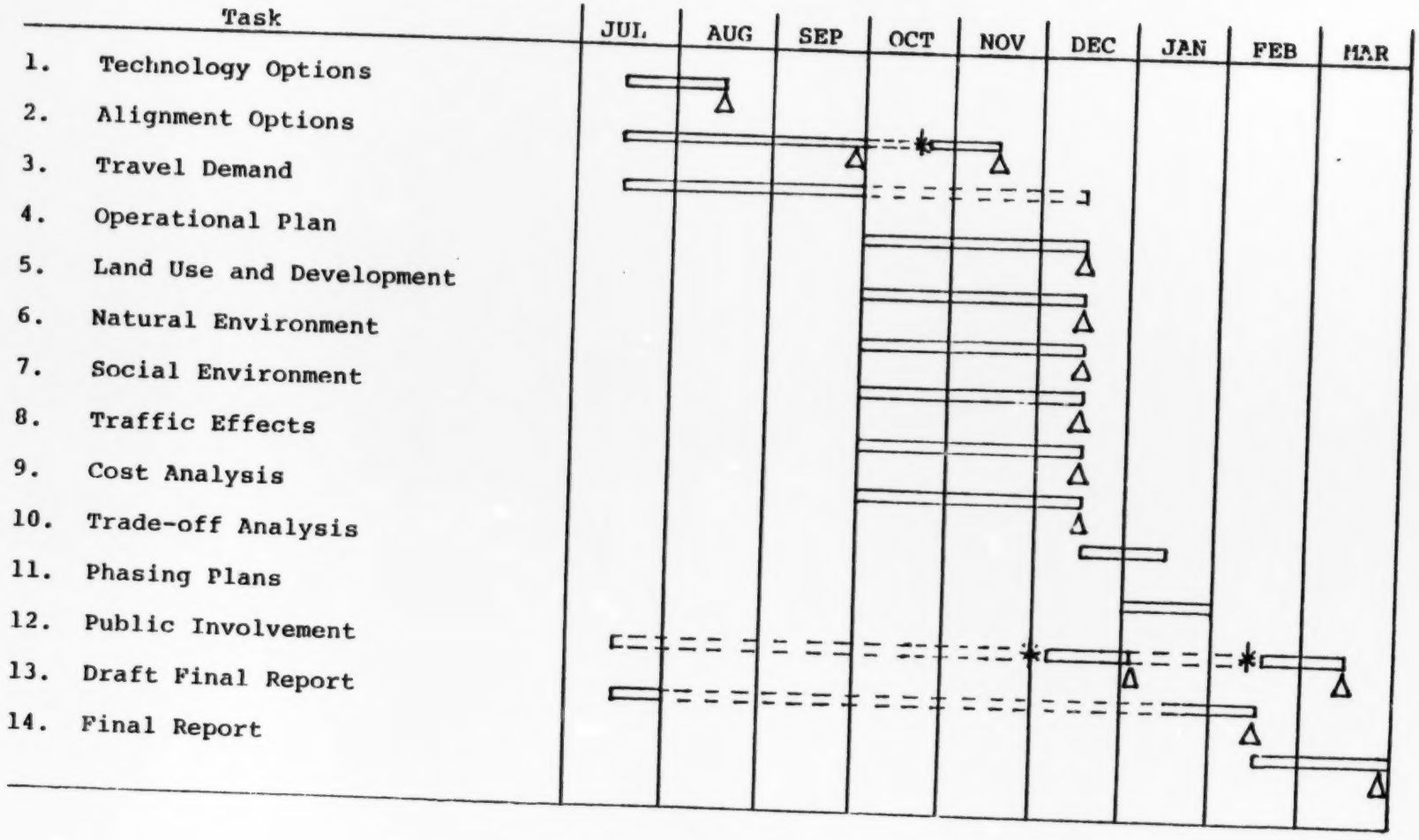
# GO-ALRT NORTHERN SECTION
# ASSESSMENT FACTORS



| FACTOR | INDICATOR | MEASURES |
|---|---|---|
| 4. NATURAL ENVIRONMENT | • PHYSICAL | - change in physiographic character of area (ha) with >10 m grade change<br>- number of erosion sites crossed and within 3 km downstream of facility |
| | • AQUATIC | - change in water table (m) and number of wells affected (where adequate)<br>- significant changes (greater than 10%) in streamflow ($m^3/s$)<br>changes in regulated flood lines<br>change in water quality<br>number of recharge/discharge areas adversely affected<br>- stream fisheries capability change<br>- number of fish migration routes disrupted<br>- number of fish spawning sites affected<br>- number of rare or endangered species affected |
| | • TERRESTRIAL | - amount of wetlands removed (ha) and significance<br>- amount of vegetation removed (ha); a) remnant woodlots,<br>b) habitat for rare or endangered species,<br>c) function vegetation for habitat, erosion control or recharge area,<br>- amount of other wildlife habitat removed (ha)<br>- number of wildlife movement corridors disrupted<br>- amount of wildlife disrupted through proximity to facility (ha) |
| | • POLICY AREAS | - number and amount (ha) of environmental policy areas affected (by type). |
| 5. LAND USE AND DEVELOPMENT | • PLANNING POLICIES | - services to planned centres (yes/no and number)<br>- number of stations at centres planned for intensification and redevelopment<br>- number of stations in stable communities<br>- consistency with municipal planning policies |
| | • RESIDENTIAL<br>COMMERCIAL<br>INSTITUTIONAL<br>INDUSTRIAL<br>AGRICULTURAL<br>RECREATIONAL | - land and facilities taken (no. and ha) and significance to other activities in neighbourhood<br>- opportunities created for development (ha, units, floor area, etc.) and significance<br>- number of residences within 800 m of station; number of jobs within 500 m of station<br>- number of property access changes required (by type)<br>- agricultural land taken by capability class, current use and ownership<br>- effects on farm operations (access, fragmentation, expansion potential) |
| 6. SYSTEM DESIGN | • STAGING | - compatibility of staged facility development with proposed land use and other rapid transit developments |
| | • DESIGN FLEXIBILITY | - number of stations and facilities with expansion potential<br>- number of sites available for building future stations as demand arises<br>- number of station sites with flexibility for conversion of uses |
| | • OPERATING CRITERIA | - number of locations suitable for introduction of future bypass tracks<br>- total length of grades >3%<br>- number of curves of <300 m radius<br>- number of occasions where stations occur on >1 km long grades of >2%<br>- number of occasions where stations occur on crests |
| 7. COST | • PROPERTY | - $ for property acquisition |
| | • CONSTRUCTION | - $ for guideway and signals<br>- $ for stations<br>- $ for maintenance facility<br>- $ for roadway widenings and reconstruction<br>- $ for major utility replacement<br>- $ for rolling stock |
| | • OPERATIONS | - annualized operating cost (operations, financing, depreciation) |

Exhibit 4

Sheppard/Finch Corridor Study[1]




1 Special studies not shown.

Δ Report Produced

Major Public Meeting(s)

(e)

# TORONTO TRANSIT COMMISSION

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CHAIRMAN

JEFFERY S. LYONS, Q.C.
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DAVID C. PHILLIPS
GENERAL SECRETARY

August 23, 1984

Mr. W.J. Lotto
Metropolitan Clerk
The Municipality of
Metropolitan Toronto
2nd Floor, City Hall
TORONTO, Ontario
M5H 2N2

Dear Mr. Lotto:

At its meeting on Tuesday, August 21, the Commission received and considered the attached report entitled, "Sheppard/Finch Rapid Transit Corridor Study."

The Commission noted the contents of the foregoing report and requested it be forwarded to Council and appropriate Officials for information.

Yours very truly,

(for) D.C. Phillips
General Secretary

1-91-64

Outside Copies: Mr. M. Ernesaks, Transit Manager
Ministry of Trans-
portation & Communications

Mr. P. Clute, Executive Assistant
Ministry of the Environment

Mr. E. Roberts, Clerk
City of North York

Mr. J.W. Nigh, Clerk
City of Scarborough

Mr. J.A. Ireland, Director
Regional Municipality of York

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Form 801740/May 82

**TORONTO TRANSIT COMMISSION**

MEETING DATE August 21, 1984

DATE August 14, 1984 REPORT NO. 6

SUBJECT SHEPPARD/FINCH RAPID TRANSIT CORRIDOR STUDY

## RECOMMENDATION

It is recommended that this report be received by the Commission, and that it be forwarded to the Municipality of Metropolitan Toronto, the Province of Ontario Ministries of Transportation and Communication and of the Environment, the cities of North York and Scarborough, and the Region of York for their information.

(A.H.S.) (L.G.B.) (J.P.)

## BACKGROUND

In June 1982, the Metro/TTC "Accelerated Rapid Transit Study" (ARTS) was released. That report recommended that a feasibility study be undertaken for an east/west rapid transit line along Sheppard Avenue. The main purpose of this line would be to stimulate and reinforce the development at the North York and Scarborough City Centres in accordance with the objectives of the Metropolitan Toronto Official Plan.

In June 1983, Metro Council approved Terms of Reference for the study of three TTC Rapid Transit Lines: The Downtown Relief/Waterfront Line; a Sheppard (or Finch) Avenue Line; and the Eglinton Avenue West Line. Under these Terms of Reference, the Relief and Eglinton lines are being studied by the Downtown Rapid Transit (DRT) Project Team. The study of the Sheppard/Finch Avenue line on the other hand, has become a part of the North Metro Rapid Transit Corridor Study (NMRTCS). The NMRTCS is part of the Provincial GO-ALRT program, a joint undertaking involving staffs of the Provincial GO-ALRT program, the Metro Planning Department and the TTC and representatives of the surrounding regional municipalities. The NMRTCS is at the initial stage of identifying broad corridor options for possible designation

as routes for a future long term inter-regional GO-ALRT line across the North Metro area.

## DISCUSSION

The Sheppard/Finch Avenue Study will be conducted by TTC staff and will include co-ordination with other Metro Departments, affected area municipalities, and the Province, as necessary. A project team has been set up which includes representatives from Metro Planning, Metro Roads and Traffic, GO-ALRT and four TTC Branches. From the results of the Eglinton West, Sheppard/Finch and Relief line studies, the TTPC will identify priorities for rapid transit investments in the Metropolitan area and make the appropriate recommendations to the Toronto Transit Commission and Metropolitan Council.

As discussed above, the Sheppard/Finch Study will be conducted jointly with the NMRTCS. The NMRTCS comprises a Project Team and a Technical Advisory Committee and reports through an Executive Steering Committee to the Minister of Transportation and Communications who has overall responsibility for the GO-ALRT program. Within the purview of the NMRTCS, TTC staff have prepared Terms of Reference (attached) for a detailed study of alternative technology, alignment and phasing options for a "local" rapid transit line along Sheppard/Finch Avenue connecting the Spadina subway and the North York and Scarborough City Centres. The term "local" is used to denote the TTC lines under study in contrast to the proposed GO-ALRT lines which are considered "inter-regional".

The Sheppard/Finch Study is a feasibility study intended to develop information of sufficient depth to enable Metro Council and the TTC to set priorities and to make recommendations for the Sheppard/Finch, Downtown, and Eglinton West Rapid Transit proposals. While these latter two studies are well underway, it is anticipated that a common completion date for all three at the end of March, 1985 can be achieved.

It is further intended that this study will meet the requirements of the Environmental Assessments Act (EAA). Any decision by Metro Council to proceed with implementation of a rapid transit line will require prior EAA

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approval, which would be sought along with other approvals under the provisions of the Consolidated Hearings Act.

The attached Terms of Reference define in detail the scope of the study and the work program. The detailed portion of the analysis will be limited to alternatives along Sheppard and Finch Avenues (including the Finch Hydro Right-of-Way). Analysis will also be carried out to determine the options for extending the line:

- to the west to link with the Spadina subway and the GO-ALRT northern line coming from Mississauga and Etobicoke;
- to the east to Malvern, and/or the GO-ALRT Lakeshore Corridor as well as the inter-connection with the Scarborough Rapid Transit line at the City Centre.

The extension of the Spadina line to meet the Sheppard/Finch line will also be a part of this study.

To keep the public and local officials involved and informed during the study, a public information program is planned as described in the Terms of Reference. Accordingly, the Terms of Reference will be part of this program and will serve to inform the public of the commencement of the study and its scope of work.

JUSTIFICATION

A rapid transit line along Sheppard or Finch Avenues would reinforce development at the North York and Scarborough City Centres in accordance with the Metropolitan Toronto Official Plan, as well as improving traffic and overall travel for persons living and working in the North Metro Corridor. The study will be completed in March 1985 and will enable Metro Council and the TTC to establish priorities amongst the Downtown/Relief line, the Eglinton West line, and the Sheppard/Finch Corridor proposals. Close co-ordination with the North Metro Rapid Transit Corridor Study will provide for the development of an integrated long

range plan for local and inter-regional rapid transit services across North Metro.

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Attached Hereto: Sheppard/Finch Rapid Transit Corridor Study Terms of Reference